

AMENDMENTS TO CLAIMS

The listing of claims replaces all prior versions of claims in the application.

Listing of Claims

1. (Currently Amended) A stabilized immunostimulatory microparticulate complex comprising a cationic peptide immunogen wherein the peptide immunogen comprises a target B cell antigen or a CTL epitope and a T helper cell epitope and _____ an anionic CpG oligonucleotide _____ wherein the cationic peptide immunogen has a net positive charge at a pH in the range of 5.0 to 8.0 calculated by assigning a +1 charge for each lysine (K), arginine (R) or histidine (H), a -1 charge for each aspartic acid (D) or glutamic acid (E) and a charge of 0 for all other amino acids in the peptide immunogen and _____ wherein the anionic CpG oligonucleotide has a net negative charge at a pH in the range of 5.0-8.0 and is a single-stranded DNA comprising 8 to 64 nucleotide bases with a repeat of a cytosine-guanidine motif and the number of repeats of the CpG motif is in the range of 1 to 10, and _____ wherein the cationic peptide immunogen:CpG oligonucleotide charge ratio ranges from 8:1 to 1:2 and _____ wherein the microparticulate complex is a precipitate with an average particle size of about 22.5 microns or less.

2-3. (Cancelled)

4. (Previously presented) The immunostimulatory microparticulate complex of claim 1, wherein the cationic peptide immunogen is a mixture of synthetic peptide immunogens.

5. (Previously presented) The immunostimulatory microparticulate complex of claim 1, wherein the net positive charge of the cationic peptide immunogen is at least +2.

6. (Previously presented) The immunostimulatory microparticulate complex of claim 4, wherein the average net positive charge of the mixture of synthetic peptide immunogens is at least +2.

7. (Previously presented) The immunostimulatory microparticulate complex of claim 5 or 6, wherein the net negative charge of the anionic oligonucleotide is at least -2.

8. (Previously presented) The immunostimulatory microparticulate complex of claim 1, wherein the CpG oligonucleotide is a single-stranded DNA molecules with 18-48 nucleotide bases and the number of repeats of CpG motif therein in the range of 3 to 8.

9. (Previously presented) The immunostimulatory microparticulate complex of claim 1, wherein the CpG oligonucleotide has the formula: 5' X¹CGX² 3' wherein C and G are unmethylated; and X¹ is selected from the group consisting of A (adenine), G (guanine) and T (thymine); and X² is C (cytosine) or T (thymine).

10.-11. (Cancelled)

12. (Previously presented) The immunostimulatory microparticulate complex of claim 1, wherein CpG oligonucleotide is selected from a group consisting of 5' TCG TCG TTT TGT CGT TTT GTC GTT TTG TCG TT 3' (CpG1) SEQ ID NO: 1, a 32 base length oligomer, and 5'nTC GTC GTT TTG TCG TTT TGT CGT T 3' (CpG2) SEQ ID NO: 2, a 24 base length oligomer plus an phosphorothioate group designated as n.

13. (Previously presented) The immunostimulatory microparticulate complex of claim 12, wherein CpG oligonucleotide is 5' TCG TCG TTT TGT CGT TTT GTC GTT TTG TCG TT 3' (CpG1) SEQ ID NO: 1.

14.-17. (Cancelled)

18. (Previously presented) The immunostimulatory microparticulate complex of claim 12, wherein the cationic peptide immunogen is a synthetic peptide conjugated to a T helper cell epitope.

19. (Previously presented) The immunostimulatory microparticulate complex of claim 18, wherein the cationic immunogen is selected from the group consisting of SEQ ID NO: 7, 8 and 9 and a mixture thereof.

20. -75. (Cancelled)

76. (Previously presented) The immunostimulatory microparticulate complex of claim 1, wherein the cationic peptide immunogen:CpG oligonucleotide charge ratio ranges from 4:1 to 1:1.

77. (New) The immunostimulatory microparticulate complex of claim 1, wherein the microparticulate complex is a precipitate with an average particle size of about 10 microns or less.

78. (New) A stabilized immunostimulatory microparticulate complex comprising a cationic peptide immunogen wherein the peptide immunogen comprises a target B cell antigen or a CTL epitope and a T helper cell epitope and

an anionic CpG oligonucleotide

wherein the cationic peptide immunogen has a net positive charge at a pH in the range of 5.0 to 8.0 calculated by assigning a +1 charge for each lysine (K), arginine (R) or histidine (H), a -1 charge for each aspartic acid (D) or glutamic acid (E) and a charge of 0 for all other amino acids in the peptide immunogen and

wherein the anionic CpG oligonucleotide has a net negative charge at a pH in the range of 5.0-8.0 and is a single-stranded DNA comprising 8 to 64 nucleotide bases with a repeat of a cytosine-guanidine motif and the number of repeats of the CpG motif is in the range of 1 to 10, and

wherein the cationic peptide immunogen:CpG oligonucleotide charge ratio ranges from 8:1 to 1:2 and

wherein the microparticulate complex is formed by combining the CpG oligonucleotide to the cationic peptide immunogen, or vice versa, in a dropwise manner to form a precipitate with an average particle size of about 22.5 microns or less.

79. (New) The immunostimulatory microparticulate complex of claim 78, wherein the cationic peptide immunogen is a mixture of synthetic peptide immunogens.

80. (New) The immunostimulatory microparticulate complex of claim 78, wherein the net positive charge of the cationic peptide immunogen is at least +2.

81. (New) The immunostimulatory microparticulate complex of claim 79, wherein the average net positive charge of the mixture of synthetic peptide immunogens is at least +2.

82. (New) The immunostimulatory microparticulate complex of claim 80 or 81, wherein the net negative charge of the anionic oligonucleotide is at least -2.

83. (New) The immunostimulatory microparticulate complex of claim 78, wherein the CpG oligonucleotide is a single-stranded DNA molecules with 18-48 nucleotide bases and the number of repeats of CpG motif therein in the range of 3 to 8.

84. (New) The immunostimulatory microparticulate complex of claim 78, wherein the CpG oligonucleotide has the formula: 5' X1CGX2 3' wherein C and G are unmethylated; and X1 is selected from the group consisting of A (adenine), G (guanine) and T (thymine); and X2 is C (cytosine) or T (thymine).

85. (New) The immunostimulatory microparticulate complex of claim 78, wherein CpG oligonucleotide is selected from a group consisting of 5' TCG TCG TTT TGT CGT TTT GTC GTT TTG TCG TT 3' (CpG1) SEQ ID NO: 1, a 32 base length oligomer, and 5'nTC GTC GTT TTG TCG TTT TGT CGT T 3' (CpG2) SEQ ID NO: 2, a 24 base length oligomer plus an phosphorothioate group designated as n.

86 (New) The immunostimulatory microparticulate complex of claim 85, wherein CpG oligonucleotide is 5' TCG TCG TTT TGT CGT TTT GTC GTT TTG TCG TT 3' (CpG1) SEQ ID NO: 1.

87. (New) The immunostimulatory microparticulate complex of claim 85, wherein the cationic peptide immunogen is a synthetic peptide conjugated to a T helper cell epitope.

88. (New) The immunostimulatory microparticulate complex of claim 87, wherein the cationic immunogen is selected from the group consisting of SEQ ID NO: 7, 8 and 9 and a mixture thereof.

89. (New) The immunostimulatory microparticulate complex of claim 78, wherein the cationic peptide immunogen:CpG oligonucleotide charge ratio ranges from 4:1 to 1:1.

90. (New) The immunostimulatory microparticulate complex of claim 78, wherein the microparticulate complex is a precipitate with an average particle size of about 10 microns or less.